

CLAIMS

What is claimed is:

1. A method for determining an optimal bid for an item in a market, said
5 method comprising:
 - a) selecting characteristics of said market;
 - b) selecting a bidding model;
 - c) estimating a structure of said market;
 - d) determining a bid function; and
 - 10 e) determining said optimal bid.
2. The method as recited in Claim 1, wherein said step a) comprises:
receiving a first user input, wherein said first user input comprises
information identifying an item to be bid on;
15 accessing a database;
retrieving historical bids data from said database;
retrieving auction characteristics data from said database, wherein said
auction characteristics data comprise information relating to historical auctions
of items similar to said item to be bid on;
20 outputting said historical bids data; and
outputting said auction characteristics data.

3. The method as recited in Claim 1, wherein said step b) comprises:
receiving auction characteristics data;
accessing a database;
retrieving from said database said bidding model, wherein said bidding
5 model is selected based on a corresponding relevance of said auction
characteristics data; and
outputting said bidding model.

4. The method as recited in Claim 1, wherein said step c) comprises:
10 receiving said bidding model;
receiving historical bids data;
expressing unobservable variables in terms of observable bids, wherein
said unobservable variables are expressed in terms of observable bids by
inverting said bidding model;
15 transforming said historical bids data to a sample of inverted bids,
wherein said historical bids data are transformed by inverting said bidding
model;
estimating a structure of said market, wherein said sample of inverted
bids receives application of statistical density estimation techniques to obtain
20 said structure; and
outputting said structure.

5. The method as recited in Claim 1, wherein said step d) comprises:
receiving a second user input,
receiving a structure;
generating a bid function, wherein said bid function is based on said
5 structure and said second user input; and
outputting said bid function.

6. The method as recited in Claim 5, wherein said second user input
comprises:
10 an auction format;
a valuation of said item; and
an expected number of rival bidders.

7. The method as recited in Claim 1, wherein said step e) comprises:
15 receiving a third user input, wherein said third user input comprises an
evaluation criteria;
receiving said bid function;
calculating said optimal bid based on said third user input and said bid
function; and
20 outputting said optimal bid.

8. A computer system comprising:

a bus;

a memory interconnected with said bus; and

a processor interconnected with said bus, wherein said processor executes a method for determining an optimal bid for an item in a market, said method

5 comprising:

a) selecting characteristics of said market;

b) selecting a bidding model;

c) estimating a structure of said market;

d) determining a bid function; and

10 e) determining said optimal bid.

9. The computer system as recited in Claim 8, wherein said step a)

comprises:

receiving a first user input, wherein said first user input comprises

15 information identifying an item to be bid on;

accessing a database;

retrieving historical bids data from said database;

retrieving auction characteristics data from said database, wherein said auction characteristics data comprise information relating to historical auctions

20 of items similar to said item to be bid on;

outputting said historical bids data; and

outputting said auction characteristics data.

10. The computer system as recited in Claim 8, wherein said step b) comprises:

receiving auction characteristics data;

5 accessing a database;

retrieving from said database said bidding model, wherein said bidding model is selected based on a corresponding relevance of said auction characteristics data; and

outputting said bidding model.

10

11. The computer system as recited in Claim 8, wherein said step c) comprises:

receiving said bidding model;

receiving historical bids data;

15 expressing unobservable variables in terms of observable bids, wherein said unobservable variables are expressed in terms of observable bids by inverting said bidding model;

transforming said historical bids data to a sample of inverted bids,

wherein said historical bids data are transformed by inverting said bidding model;

20

estimating a structure of said market, wherein said sample of inverted bids receives application of statistical density estimation techniques to obtain said structure; and
outputting said structure.

5

12. The computer system as recited in Claim 8, wherein said step d) comprises:

receiving a second user input;

receiving a structure;

10 generating a bid function, wherein said bid function is based on said structure and said second user input; and

outputting said bid function.

13. The method as recited in Claim 12, wherein said second user input
15 comprises:

an auction format;

a valuation of said item; and

an expected number of rival bidders.

20 14. The computer system as recited in Claim 8, wherein said step e) comprises:

receiving a third user input, wherein said third user input comprises an evaluation criteria;

receiving said bid function;

calculating said optimal bid based on said third user input and said bid

5 function; and

outputting said optimal bid

15. A computer readable medium for causing a computer system to execute the steps in a method for determining an optimal bid for an item in a market, said

10 method comprising:

a) selecting characteristics of said market;

b) selecting a bidding model;

c) estimating a structure of said market;

d) determining a bid function; and

15 e) determining said optimal bid.

16. The computer readable medium as recited in Claim 15, wherein said step a) comprises:

receiving a first user input, wherein said first user input comprises

20 information identifying an item to be bid on;

accessing a database;

retrieving historical bids data from said database;

retrieving auction characteristics data from said database, wherein said auction characteristics data comprise information relating to historical auctions of items similar to said item to be bid on;

outputting said historical bids data; and

5 outputting said auction characteristics data.

17. The computer readable medium as recited in Claim 15, wherein said step b) comprises:

receiving auction characteristics data;

10 accessing a database;

retrieving from said database said bidding model, wherein said bidding model is selected based on a corresponding relevance of said auction characteristics data; and

outputting said bidding model.

15

18. The computer readable medium as recited in Claim 15, wherein said step c) comprises:

receiving said bidding model;

receiving historical bids data;

20 expressing unobservable variables in terms of observable bids, wherein said unobservable variables are expressed in terms of observable bids by inverting said bidding model;

transforming said historical bids data to a sample of inverted bids,
wherein said historical bids data are transformed by inverting said bidding
model;

estimating a structure of said market, wherein said sample of inverted
5 bids receives application of statistical density estimation techniques to obtain
said structure; and
outputting said structure.

19. The computer readable medium as recited in Claim 15, wherein said
10 step d) comprises:
receiving a second user input;
receiving a structure;
generating a bid function, wherein said bid function is based on said
structure and said second user input; and
15 outputting said bid function.

20. The method as recited in Claim 19, wherein said second user input
comprises:
an auction format;
20 a valuation of said item; and
an expected number of rival bidders.

21. The computer readable medium as recited in Claim 15, wherein said step e) comprises:

receiving a third user input, wherein said third user input comprises an evaluation criteria;

5 receiving said bid function;

calculating said optimal bid based on said third user input and said bid function; and

outputting said optimal bid.